

THE NEW RECORDED GENUS SHELFORDINA HEBARD AND A NEW SPECIES OF THE SUBFAMILY PSEUDOPHYLLODROMIINAE VICKERY & KEVAN FROM CHINA (BLATTARIA, BLATTELLIDAE)

WANG Zong Qing¹, CHE Yarr Li¹, ZHANG Yarr Ning²

1. College of Plant Protection, Southwest University, Chongqing 400716, China

2. Institute of Plant Protection, Chinese Academy of Agricultural Sciences, Beijing 100094, China

Abstract This paper deals with the genus *Shelfordina* Hebard, which is newly recorded for China. *Shelfordina vdubilis* Wang, sp. nov. is described as new to science. A checklist of all species of this genus is provided.

Key words Blattaria, Blatellidae, Pseudophyllodromiinae, *Shelfordina*, new species, China.

1 Introduction

Hebard (1929) erected the genus *Shelfordina* based on two species, i. e., type species, *Phyllodromia terminalis* Brunner, 1898 and *S. jarakae* Hebard, 1929. Princis (1969) listed 7 species of *Shelfordina*, of which *S. japonica* (*Shelford*, 1907) was transferred to the genus *Symploce* by Asahina (1974), and *S. erythrocephala* (Hanitsch, 1935) to the genus *Episymploce* by Roth (1985) respectively. Roth (1990) revised the genus *Shelfordina* and selected *Shelfordina fuscoatenea* (Hanitsch, 1929) as type species. At the same time he described 7 species and transferred 4 species to the genus *Shelfordina*. Roth (1997, 1999) described 3 species in all and synonymized *Liosiphodea* Hanitsch with *Shelfordina* Hebard. Currently, twenty-four world species are known. In this paper one new species is described and illustrated here. The type specimens are kept in the Insect Collection of Southwest University (SWU).

2 Shelfordina Hebard New Record to China

Shelfordina Hebard, 1929: 46. Type species: *Shelfordina fuscoatenea* (Hanitsch, 1929), selected by Roth, 1990: 600.

Shelfordella Hanitsch, 1933: 126, replaced by *Emerella* Hanitsch, 1935: 14.
Type species: *Phyllodromia terminalis* Brunner, 1898.

Possonia Strand, 1934: 275, synonymized by Princis, 1951: 57. Type species: *Phyllodromia terminalis* Brunner, 1898.

Emerella Hanitsch, 1935: 14, synonymized by Princis, 1951: 57. Type species: *Phyllodromia terminalis* Brunner, 1898.

Liosiphodea Hanitsch, 1930: 256, synonymized by Roth, 1997: 209. Type species: *Liosiphodea lata* Hanitsch, 1923, selected by Princis, 1951: 56.

3 Generic Diagnosis

Vertex with interocular space slightly less than or about the same as distance between antennal sockets. Pronotum nearly elliptical and flattened, concealing head and mesonotum, with anterior margin nearly truncate and mid of posterior margin slightly convex. Tegmina and hind wings usually fully developed, sometimes

reduced, only reaching end of abdomen, hind wings shorter than tegmina, sometimes rudimental; tegmen with longitudinal or sublongitudinal discoidal sectors. Hind wing with simple radial vein, some clubbed or thickened; discoidal vein straight and simple; median vein straight and usually simple, rarely with small apical branch; cubitus vein with 0 (rarely) to 5 complete branches, incomplete branches generally absent, apical triangle present. Front femur Type A₂ or A₃, rarely intermediate between Types A and B, or Type B; pulvilli present on 4 proximal tarsomeres, tarsal claws symmetrical, specialized, ventral margins serrated, arolia present. Male: abdominal terga unspecialized. Supraanal plate transverse, symmetrical, right and left paraprocts similar, without spinelike processes. Subgenital plate symmetrical, styles widely separated, each in the posterolateral corner of plate; a style like structure (accessory style) usually at base of each style. Genital hook on right side.

Distribution. Oriental Region.

Checklist of the genus Shelfordina Hebard

- 1) *S. angustior* (Hanitsch, 1928: 28, *Liosilpha*), Indonesia
- 2) *S. cooki* Roth, 1990: 624, Australia
- 3) *S. daulopassana* Roth, 1997: 217, Papua New Guinea
- 4) *S. digitata* (Hanitsch, 1928: 18, *Neoblattella*), Indonesia
- 5) *S. fuscoatenea* (Hanitsch, 1929: 274, *Neoblattella*), Indonesia
- 6) *S. volubilis* Wang, sp. nov. China
- 7) *S. hispidensata* Roth, 1999: 111, Indonesia
- 8) *S. jarakae* Hebard, 1929: 48, Malaysia
- 9) *S. lata* (Hanitsch, 1923: 416, *Liosilpha*), Malaysia, Singapore, Thailand
- 10) *S. latimarginata* (Hanitsch, 1928: 19, *Neoblattella*), Indonesia
- 11) *S. longicalata* (Hanitsch, 1923: 417, *Liosilpha*), Indonesia
- 12) *S. minor* (Hanitsch, 1929: 273, *Neoblattella*), Indonesia
- 13) *S. orchidae* (Asahina, 1985: 6, *Imblattella*), Japan, Australia
- 14) *S. panamae* (Hebard, 1920: 56, *Neoblattella*), Panama
- 15) *S. philippinensis* Roth, 1990: 615, Philippines
- 16) *S. robertsi* Roth, 1990: 626, Australia

The research was supported by China Postdoctoral Science Foundation (20070420723) as well as Southwest University Foundation for Doctor (SWUB2006040).

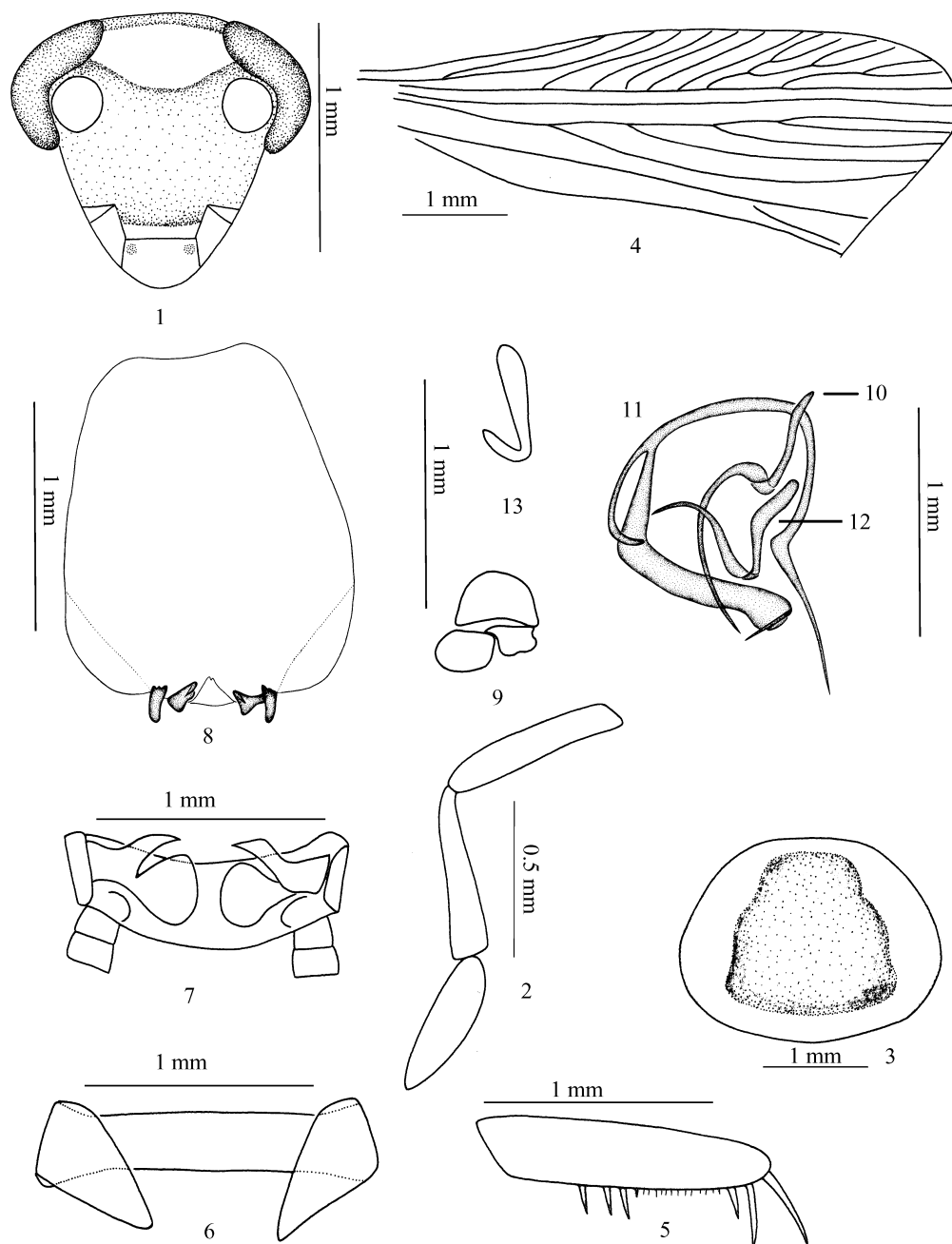
Received 19 Nov. 2008, accepted 15 June 2009.

- 17) *S. sequens* (Walker, 1868: 229, *Blatta*), Indonesia
 18) *S. spinistylifera* (Roth, 1985: 154, *Symploce*), Malaysia
 19) *S. sumatrensis* Roth, 1990: 607, Indonesia
 20) *S. terminidis* (Brunner, 1898: 206, *Phyllostoma*), Borneo, Indonesia
 21) *S. tozerensis* Roth, 1990: 620, Australia
 22) *S. uniformis* (Hanitsch, 1933, *Shelfordella*), Indonesia
 23) *S. waitmensis* Roth, 1990: 629, Indonesia
 24) *S. wanisana* Roth, 1999: 113, Indonesia
 25) *S. yeatesi* Roth, 1990: 624, Australia

Shelfordina volubilis Wang, sp. nov. (Figs. 1-13)

Description. Pronotum length $\times$ width, 3.0 mm $\times$ 4.5 mm; tegmen, 14 mm; overall length (incl. tegmen), 16.5 mm.

Body dark brown. Head black with an orange interocular band. Face black, clypeus pale brown with two small brown dots, antenna and maxillary palp dark brown. Pronotal disk black, completely surrounded by broad yellow border. Tegmen with costal region pale yellow almost reaching apex of wing cover, remainder dark brown.



Figs 1-13. *Shelfordina volubilis* Wang, sp. nov. 1. Head, ventral view. 2. Maxillary palps with segments 3-5. 3. Pronotum. 4. Hind wing (vannal region damaged). 5. Front femur. 6. Ninth abdominal tergum, ventral view. 7. Supraanal plate and paraprocts, ventral view. 8. Subgenital plate, dorsal view. 9. Left phallomere. 10. Median phallomere. 11-12. Associated median phallomere appendages. 13. Right phallomere.

Head with one transverse band, which is widest at mid; interocular space about the same as distance between antennal sockets (Fig. 1). Maxillary palp with third segment and fourth segment approximately equal in length, both slightly longer than the fifth (Fig. 2). Pronotum with irregular macula as Fig. 3. Hind wing with two radial veins branched at apex, median vein simple, cubitus vein with 4 complete branches, apical triangle small and distinct (Fig. 4). Front femur Type B₃, tarsal claws symmetrical, with indistinct denticles on ventral margins (Fig. 5). Pleurae of ninth tergum nearly triangular (Fig. 6).

Supraanal plate short, symmetrical, hind margin rounded; right and left paraprocts similar, sclerotized plates (Fig. 7). Subgenital plate symmetrical, subquadrate, each side with a crease at distal portion (Fig. 8). Styli short, cylindrical, near each style with an associate style, of which basal part stout, distal portion sharpened and curved backward. Interstyler margin convex and upturned, apex slightly concave. Genitalia as in Figs. 9-13: Left phallomere small, sclerotized plates (Fig. 9). Median phallomere long, basal half distorted, distal part arched and gradually tapering as Fig. 10; two associated median phallomere appendages present, one beneath median phallomere, circle-like, with right distal portion longer, spine-like, left broad with an apical spine, and a short branch located nearly at mid (Fig. 11); the other resembling median phallomere, but shorter (Fig. 12). Hook with sclerotized portion very small, on right side, slim and without V-shaped incision (Fig. 13).

Holotype ♂, China, Fujian Province, Hexi County, 11 May 1962, coll. JIN Gen Tao. Paratypes 2 ♂♂, same data as holotype.

Comments. The new species superficially resembles

Hemithysocera vittata (Brunner, 1865), but can be easily distinguished by interocular band of vertex and male genitalia.

Particularly, the subgenital plate is similar to that of *S. uniformis* (Hanitsch, 1933), but can be differentiated by: head with an orange interocular band, front femur Type B₃, median phallomere long and complicated with two associated median phallomere appendages, hind margin of subgenital plate convex and upturned, supraanal plate short, hind margin weakly rounded.

This new species is put in *fusdastanea* species group of *Shelfordina* for accessory styles and interstyler region not modified, without setose lobes.

Etymology. The specific name refers to median phallomere and two associated median phallomere appendages complicated, twining together.

Distribution. China (Fujian).

REFERENCES

- Asahina, S. 1974. Taxonomic notes on Japanese Blattaria. VI. What is "*Phyllodromia japonica*"?. *Japanese Journal of Sanitary Zoology*, 25 (2): 161-166.
- Hebard, M. 1929. Studies in Malayan Blattellidae (Orth.). *Proceedings of the Academy of Natural Sciences of Philadelphia*, 81: 1-109.
- Princis, K. 1969. Blattariae: subordo Epilamproidea; Fam. Blattellidae. In: Beier, M. (ed.), *Orthopterorum Catalogus* 13: 711-1088.
- Roth, L. M. 1985. A taxonomic revision of the genus *Blattella* Caudell (Dictyoptera, Blattaria, Blattellidae). *Entomologia Scandinavica*, 22 (Suppl.): 1-221.
- Roth, L. M. 1990. Revisionary studies on Blattellidae (Blattaria) from the Indo Australian region. *Memoirs of the Queensland Museum*, 28 (2): 597-663.
- Roth, L. M. 1997. The cockroach genera *Shelfordina* Hebard, *Delosia* Bolivar, and *Duryadina* Kirby (Blattaria: Blattellidae: Pseudophyllodromiinae). *Oriental Insects*, 31: 209-227.
- Roth, L. M. 1999. Description of new taxa, redescrptions, and records of cockroaches, mostly from Malaysia and Indonesia (Dictyoptera: Blattaria). *Oriental Insects*, 33: 109-185.

中国伪姬蠊亚科一新纪录属和一新种记述 (蜚蠊目, 姬蠊科)

王宗庆¹ 车艳丽¹ 张燕宁²

1. 西南大学植物保护学院 重庆北碚 400716

2. 中国农业科学院植物保护研究所 北京 100094

摘要 报道了中国伪姬蠊亚科1新纪录属, 拟刺蠊属 *Shelfordina* Hebard (国外分布: 东洋区; 国内分布: 福建), 1新种绕茎拟刺蠊 *Shelfordina volubilis* Wang, sp. nov.。模式标本保存在西南大学标本室。

绕茎拟刺蠊, 新种 *Shelfordina volubilis* Wang, sp. nov. (图1~13)

前胸背板长×宽 3.0 mm×4.5 mm, 前翅长 14 mm, 体连翅长 16.5 mm。

本种外形与黄缘拟截尾蠊 *Hemithysocera vittata* (Brunner, 1865) 很相似, 但很容易通过雄性外生殖器特征及复眼间的

关键词 蜚蠊目, 姬蠊科, 伪姬蠊亚科, 拟刺蠊属, 新种, 中国。

中图分类号 Q969.252.1

横带区别。其主要区别如下: 本种与一色拟刺蠊 *S. uniformis* (Hanitsch, 1933) 的下生殖板非常相似, 但可由以下特征区别: 头部复眼间具橘黄色横带, 前足腿节刺式 B₃ 型, 雄虫外生殖器中阳茎细长且具两个附属物, 下一殖板后缘突出并向上卷, 肛上板短且后缘稍圆。

词源: 拉丁词 "*volubilis*" 意为缠绕的, 此处主要指中阳茎和两个附属物复杂, 缠绕在一起。

正模 ♂, 福建和溪, 1962-05-11, 金根桃采。副模 2 ♂♂, 同正模。